You can read the recommendations in the user guide, the technical guide or the installation guide for M-AUDIO DELTA 1010LT. You'll find the answers to all your questions on the M-AUDIO DELTA 1010LT in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

**User manual M-AUDIO DELTA 1010LT**
**User guide M-AUDIO DELTA 1010LT**
**Operating instructions M-AUDIO DELTA 1010LT**
**Instructions for use M-AUDIO DELTA 1010LT**
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**M·AUDIO Delta 1010LT - Users Manual**

Version: D1010LT-121002

## Table of Contents

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*Manual abstract:*

. . . . . @@@@@@It will give you valuable information on installing your new card and the supporting software, plus help you to fully understand the function and usability of the Delta 1010LT. Once you're up and running, you will quickly discover the power and brilliance, both in sound and design, of your Delta 1010LT PCI Audio Card. What's in the Box? Your Delta 1010LT box contains: · This instruction manual. · Two (2) Delta 1010LT breakout cables. · The Delta 1010LT PCI host adapter card.

· CD containing drivers & Delta Control Panel software for Windows XP, 2000/ME/98/95/NT and for Macintosh OS 8.5.1 or higher. · M-Audio Warranty Registration card. About the Delta 1010LT Digital PCI Audio Card The Delta 1010LT functions as a 10-input, 10-output digital recording/playback interface with 1x1 MIDI operation.

Eight analog inputs and eight analog outputs plus coaxial S/PDIF I/O give you the highest quality analog and digital I/O available -- all with up to 24-bit data width and at any sampling rate from 8kHz to 96kHz. All connections are located on two rugged breakout cables, which also include word clock I/O connectors for superior synchronization between the Delta 1010LT and other word clock capable audio gear. You can connect your microphone, instrument, mixer, or pre-amp to the Delta 1010LT's female XLR jacks or the RCA input jacks to monitor and record incoming audio. You can also transfer a digital audio to and from your DAT, MiniDisc, CD, or external A/D converter via the Delta 1010LT's S/PDIF input and output. The 1010LT also includes the comprehensive Delta Control Panel software, giving you ultimate control over routing plus many other Delta settings including master clock selection and S/PDIF copy protection.

The 1010LT's XLR jacks will accept balanced mic or line level audio signals, while the RCA inputs are better suited to unbalanced operation. The XLR inputs can be configured to accept either microphone level signals or balanced line level signals, accomplished by setting the jumpers located on the 1010LT PCI card. There are some options to consider, and since this is a decision you may want to make before installing the PCI card, please read the section "Setting the Jumpers" that precedes the "Hardware Installation" section. Finally, line level settings for all inputs and outputs can be controlled via the included Delta Control Panel software. 2 Within the Delta 1010LT's PCI chip is a hardware digital mixer. Controlled by the Delta Control Panel software, it may handle all of your mixdown needs, give you extra control of all left, right and stereo levels plus pans, solos, and mutes, or simply give you an alternate or headphone mix. Quick Start Guide There may not be any instant tips or tricks for understanding and using an audio interface that is as versatile as the Delta 1010LT. However, we may be able to include some "straight talk" to help light the way. On the PC: Following the installation procedures for both the Delta hardware and software will enable the 1010LT for use in Windows. The Delta 1010LT will become your Windows sound card simply by going to My Computer | Control Panel | Multimedia, and changing Audio settings to one of the Delta stereo pairs.

In this way, the Delta card will be the default audio device for your Windows and other media players. On the Mac: Following the installation procedures for both the Delta hardware and software will enable the 1010LT to be configured for use in a music program that utilizes the ASIO drivers supplied with the Delta. Additionally, the Delta 1010LT can be used in the Apple Sound Manager for your system sounds or in a music/recording program that directs itself to the Sound Manager. The Delta 1010LT will become your Macintosh's audio device simply by going to the Apple menu | Control Panel | Sound, and changing audio settings from "built-in" to the Delta.

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*In this way, the Delta card will be the default audio device for your Apple applets and a variety of media players. If you wish only to use the Delta with an ASIO compliant music program, leave this setting on "built-in." You will, however, need a music/recording software application to take full advantage of the Delta 1010LT as a production tool, and most likely that software will need to analyze and configure the Delta 1010LT--this usually occurs when first launching the program after the Delta 1010LT has been installed. On the PC, the 1010LT is also capable of playing an encoded surround sound signal from the S/PDIF output using some of the DVD player applications that exist on the market. This usually takes some audio output configuration within the player. The Delta Control Panel controls many of the card's settings, and includes controls for the digital mixer that is contained on the Delta card.*

*While all of those settings may seem daunting at first, it may help to know that by using only the default settings, the card is ready to playback audio files from your computer (the control panel is set to play audio outputs from software). This can be done from a media player or from your music application, provided the outputs are set to a Delta output port and the software and card are properly configured. You will be able to hear the Delta inputs under certain conditions. Using a recording program that utilizes the ASIO or EASI drivers with the Delta 1010LT, or (in Windows) using the Windows WDM drivers with programs that take full advantage of them, will allow you to monitor the Delta inputs through the program, and thereby continue to use the default settings in the Delta Control Panel (as mentioned, these are audio outputs from software). When using the Delta card and monitoring in this fashion, there is always some degree of latency, or delay between the the actual input signal and the monitoring of that input signal.*

*3 Another way to approach this is by directly monitoring those inputs. This can be done in the Delta Control Panel's "Patchbay/Router" page by selecting the Delta input and connecting it directly to the Delta output. You can also use the Delta panel's Monitor Mixer to send the signal at the inputs to the Delta outputs, as well as mix those signals with the software outputs, i.e., your music software sending audio to the Delta outputs.*

*This, and other recording/monitoring scenarios are covered in the Tutorials section toward the end of the manual. Product Features & Specifications · · · 10x10 24-bit/96khz full-duplex recording interface. PCI host card with two external, color-coded breakout cables. 8x8 analog I/O, balanced on female XLR and unbalanced on gold-plated RCA connectors, with output line level adjustments selectable within the Delta Control Panel. · The two balanced analog inputs can be set via hardware jumpers to accept microphone level signals or line level signals. · S/PDIF digital I/O supports a variety of settings, including AC3 or DTS surround (PC only) and copy protection schemes, which can be set via the Delta Control Panel. · External synchronization up to 100kHz via word clock I/O on BNC connectors. · 1x1 MIDI I/O on standard DIN jacks. · High dynamic range (A-weighted measured): D/A 101.5 dB, A/D 99.*

*6 dB. · Low distortion (measured THD @ 0dBFS): A/D and D/A less than 0.002%. · Frequency Response: 22-22kHz, -0.2,-0.4dB @48kHz; 22-40kHz,-0.2,-0.7dB @96kHz · All data paths support up to 24bit/96kHz performance, no upgrades necessary. · Comprehensive digital mixingital devices. 12.*

*Host Cable connector 2: This 44-pin D-sub connector attaches to the supplied breakout cable #2 to allow communication between the PCI host card and external analog devices. 13. Line Level Jumper #1: This jumper set allows you to switch the XLR analog input #1 level setting from balanced microphone level to a +4dBu line level setting. The default setting shown is the microphone level setting. 14.*

*Line Level Jumper #2: This jumper set allows you to switch the XLR analog input #2 level setting from balanced microphone level to a +4dBu line level setting. The default setting shown is the microphone level setting. Setting the Jumpers The Delta 1010LT's PCI card has two sets of jumpers that can be used to control the operating line level for the 1010LT's analog inputs 1&2 on XLR jacks. The location of these jumpers is illustrated in the previous section under "PCI Host Adapter Card." Two basic settings are possible, one for a microphone line level compatible with low impedance dynamic microphones (those that do not require phantom power, such as condenser mics), and the other is an operating line level of +4dBu (typical for balanced line levels).*

*Two variations are possible for each of these line level settings. This is shown in the illustrations below. The default setting when you receive your 1010LT is with the jumpers set to the microphone line level setting. If you wish to use either or both inputs 1&2 as a +4dBu line level input, then you will need to change the jumper setting on the 1010LT PCI card. 7 Changing the jumper setting is easy to do when the 1010LT PCI card is not installed in the computer. Since it is usually impossible to change the jumpers while the card is in the computer, it's a good idea to make a decision now. If you wish to connect a dynamic or ribbon microphone directly to the Delta 1010LT's XLR analog inputs 1&2, then leave the jumpers set to their default setting, +4dBu. If you wish to connect the XLR analog inputs 1&2 to the output of a balanced +4dBu device such as a pre amp or dynamics processor, you will need to change the jumper setting. Remember that you can change one set of jumpers and not the other, if that suits your needs. To change the jumper: 1.*

*Before removing the Delta 1010LT PCI host card from its protective anti-static bag, touch the metal power supply case of the computer in order to dissipate any static electricity your body may have accumulated. You might want to pick up a grounding wrist strap (available from electronics stores like Radio Shack) if you want to be doubly sure you aren't carrying a static charge that could damage the card. 2. Either hold the PCI card in your hand, or place it on an anti-static surface (such as its protective bag). Using your fingertips or a tweezer, remove the plastic jumper that is covering the top-most and middle metal pins. See Illustrations 1 and 1a, below. 3. Place the jumper over the middle and bottom-most metal pins. See Illustrations 2 and 2a, below. 1 1A 2 2A Mic Level +30dB gain Mic Level Attenuates +30dB by 11dB (i.*

*e., +19dB gain) Line Level +14dBu peak (+4 mode) Line Level Changes Line Level to +3dBu peak (+4 mode) NOTE: Illustrations 1a and 2a show a variation on the mic level setting and the line level setting, respectively.*

*If you find that your signal is too hot using the +4dBu selection in the Delta Control Panel's "Variable Signal Level" section of the Hardware Settings page, then try these alternate settings. Hardware Installation To mechanically install the Delta 1010LT, do the following: 1. Turn off your computer and unplug the AC cord.*

*2. Remove the computer's cover and position the computer so that you may easily access its PCI slots. 8 3. Select the PCI slot where you will install your Delta 1010LT PCI host card. Make sure the slot is a PCI slot.*

*If you don't know what "PCI slot" means, check the owner's manual for your computer. PCI slots are distinguishable from ISA slots by being shorter and set back farther from the outside of the computer, however some newer computers have only PCI slots. 4. Before removing the Delta 1010LT PCI host card from its protective anti-static bag, touch the metal power supply case of the computer in order to dissipate any static electricity your body may have accumulated. You might want to pick up a grounding wrist strap (available from electronics stores like Radio Shack) if you want to be doubly sure you aren't carrying a static charge that could damage the card. 5. Remove the metal bracket that covers the access hole on the back of the computer. This bracket is usually fastened to the computer with a single screw. 6. Position the Delta 1010LT PCI host card over the target PCI slot and fit the card loosely over it with the card in the upright position.*

*Press the card gently but firmly downward into the slot until the card is completely and squarely seated in the slot. If the card seems difficult to seat, a slight rocking motion may help. 7. Screw the Delta 1010LT PCI host card's metal bracket down into the screw hole on the back of your computer using the screw you removed in step 5 above. 8. Place the cover back on your computer. IMPORTANT: Complete the attachment of your Delta 1010LT breakout cables to the PCI card before powering up your computer. Never attach a breakout cable to the PCI card while the computer is on. Doing so could damage the PCI card and void the warranty. With your computer turned off, it is now time to connect the Delta 1010LT breakout cables to the PCI host card that you have just installed.*

*You may at this time also want to connect to audio gear that you using in conjunction with your Delta 1010LT. Delta Driver Software Installation - for PC The Delta 1010LT system includes a driver CD for Windows XP/2000/ME/98/95/NT (and Macintosh, too), containing all Windows drivers and Delta Control Panel software. To install these on your system, please follow these steps: Windows XP,2000, and ME Installation 1. After installing the Delta 1010LT hardware, boot your system and start Windows. During the Windows boot procedure, new hardware will be automatically detected by the Add New Hardware Wizard announcing "New Hardware Found.*

*" Click  Next>'. 2. The 'Add New Hardware Wizard' will now ask how you want to find the driver. "Search for the best driver for your device" is already selected. Click  Next>'.*

*3. Windows will give you a selection of locations to search. Make sure that only "Choose a Path" is checked, or click on the check box to do so. Insert the Driver CD into your CD ROM drive. Type in the drive letter of your CD drive (we will assume here that it is D:\) and the path to the Delta drivers, which will be D:\Delta Series\Wdm. Click  Next>'. 9 4. The  Wizard' reports that its Windows driver file search has found the M-Audio Delta 1010LT. Click Next>. If announcements that "No Driver Signature" pop up, ignore them and continue with the installation procedure.*

*5. Windows is now ready to install the driver files from the specified location. Click Next>. Windows will start to copy the files and show you a progress report screen. 6. The Wizard reports that Windows has finished installing the software. Click  Finish'. Your Delta 1010LT is ready for action. After completion of the driver installation, Windows may require you to restart. If it does request a restart, remove the Drivers CD Disk from the CD drive and respond "Yes.*

*" The system will restart and your Delta 1010LT is ready for play. Windows 98 Installation 1. After installing the Delta 1010LT hardware, boot your system and start Windows. During the Windows boot procedure, new hardware will be automatically detected by the Add New Hardware Wizard. Click  Next>'.*

*2. The 'Add New Hardware Wizard' will now ask how you want to find the driver. "Search for the best driver for your device" is already selected. Click  Next>'. 3.*

*Windows will give you a selection of locations to search. Make sure that only "Choose a Path" is checked, or click on the check box to do so. Insert the Driver CD into your CD ROM drive. Type in the drive letter of your CD drive (we will assume here that it is D:\) and the path to the Delta drivers, which will be D:\Delta Products\Delta98. Click  Next>'. 4. The  Wizard' reports that its Windows driver file search has found the M-Audio Delta 1010LT. Click Next>. 5. Windows is now ready to install the driver files from the specified location.*

*Click Next>. Windows will start to copy the files and show you a progress report screen. 6. The Wizard reports that Windows has finished installing the software. Click  Finish'. Your Delta 1010LT is ready for action. After completion of the driver installation, Windows may require you to restart. If it does request a restart, remove the Drivers CD Disk from the CD drive and respond "Yes". The system will restart and your Delta 1010LT is ready for play. Windows 95 Installation 1.*

*After installation of the Delta 1010LT hardware, boot your system and start Windows. During the Windows boot procedure, new hardware will be automatically detected. 2. Choose the Install of "driver from disk provided by hardware manufacturer," then click OK. 3.*

*An  Install From Disk' will prompt you to copy files from the A:\ drive. Insert the Driver software CD into your CD ROM drive. Type in the drive letter of your CD drive (we will assume here that it is D:\) and the path 10 to the Delta drivers, which will be D:\Delta Products\Delta98 (these drivers also work in Win95). Click  Next>'. 4.*

*Windows will start to copy files, with a progress indicator on the screen. Once this process completes itself, your Delta 1010LT will be ready for action. After completion of the driver installation, Windows may require you to restart. If it does request a restart, remove the Drivers CD Disk from the CD drive and respond "Yes." The system will restart and your Delta 1010LT is ready for play. Windows NT Installation 1. Power up your computer after physically installing the Delta 1010LT interface card. 2. Go to Start | Settings | Control Panel and double click on  Multimedia.' 3.*

Click the 'Devices' tab, then click the 'Add' button. 4. "Unlisted or Updated Driver" will be highlighted at the top of the list. Click OK. 5. The 'Install Driver' box will prompt you to insert the driver disk, and the A: prompt will appear as the path. Insert the Drivers CD into your CD ROM drive. Type in the drive letter of your CD drive (we will assume here that it is D:\) and the path to the Delta drivers, which will be D:\Delta Products\DeltaNT. Click OK. 6. The "M Audio Delta Interface Card" driver will appear in the Add Unlisted or Updated Driver dialog box. Click OK. 7. Windows NT will require you to restart your computer for the changes to take effect. Choose "Restart Now.

" Upon restart, your Delta 1010LT will be ready for use. Verifying Windows Driver Installation Windows displays the Delta 1010LT driver status in the Device Manager page of the System Properties dialog box. The Device Manager page is opened via the Windows Start button: select Start | Settings | Control Panel | System | Device Manager. With the Device Manager displayed, click on the "+" next to "Sound, video and game controllers" to open a list of devices, the Delta 1010LT being a device of that nature. Below is an example view of the Device Manager.

11 This example shows the M-Audio Delta 1010LT entry in the Windows Device Manager device list. The Delta 1010LT is properly installed with no conflicts. If you do not see your M-Audio Delta 1010LT in your Device Manager in this fashion, please jump ahead to the "Troubleshooting" section of this manual located on pg 56. Verifying Delta Control Panel Software Installation in Windows In Windows, open the Windows Control Panel (do so via Start | Settings | Control Panel). If your Delta 1010LT hardware and Delta Control Panel software are properly installed, the Windows Control Panel should display an "M Audio Delta H/W" icon. By double-clicking on that icon, you can launch the Delta Control Panel software. For convenience, you may also create a shortcut on your desktop by dragging a copy of the "M Audio Delta H/W" icon from the Control Panel to your Windows desktop using your mouse or trackball. After completing the drag operation, a dialog box will ask you if you wish to create a shortcut -click on 'Yes.' Once the shortcut is installed, all you have to do is double-click on the shortcut icon on your desktop to launch the Delta Control Panel software. @@@@Without the music program open however, it is okay to open the Delta panel from your desktop or other location.

12 Delta Driver Software Installation on the Mac 1. Open the System folder on your Macintosh hard drive. In the System folder, locate the Extensions folder. 2. On you Drivers CD disk, open the Mac Delta Drivers folder. Place the extension file "Delta 1010LT Driver" in your Extensions folder by clicking on it and dragging it to the Extensions folder. 3. If you are using a music program that uses ASIO drivers, it will also have an ASIO folder within the application's folder. In your Mac Delta Drivers folder you will find three Delta 1010LT ASIO drivers. For Cubase versions 4.

x, use the "ASIO2 Delta1010LT" driver. For Metro, or earlier versions of Cubase, use the "ASIO Delta1010LTv3" driver. For any music program that is not ASIO2 capable, use the "ASIO Delta 1010LT" driver instead (check your program's documentation). Place the file "ASIO Delta" in your program's ASIO folder by clicking on it and dragging it to the ASIO folder. 3.

Drag the "DeltaPanel PPC" file onto your Macintosh hard drive. You can run the Delta Control Panel from any place that's convenient, though music software applications that use ASIO will allow you to launch the Delta panel from within the program. If not, we suggest creating an alias to the control panel by highlighting it and pressing Command (Apple key)+M. Then, drag the alias to the desktop. 4.

With the Delta 1010LT PCI card installed, restarting the computer will load the Delta 1010LT extension. You will be able to visually see the Delta extension icon pass by as your system loads extension. 5. Go to the Apple menu |Control Panel | Sound. You should see the "built-in" sound icon, plus the Delta icon if your Delta 1010LT is properly installed. If your music program does use ASIO, you may want to leave the Sound Manager driver set to "built-in" for both Sound In and Sound Out. If your program does not use ASIO (check your software's documentation) and you will be using the Sound Manager to communicate with your Delta 1010LT, set Sound In and Sound Out to "Delta." See the section "Hardware Settings Page" in the Delta 1010LT "Control Panel Software" section for information on selecting Sound Manger inputs and outputs. Your Delta 1010LT is now ready for audio input and output. To configure the Delta for MIDI, you will need to have Opcode's OMS (Open Music System) installed first.

OMS is provided on the CD that came with the unit. Opening the OMS 2.3.7 folder and double-clicking on the "Install OMS 2.3.7" program will install OMS in your system. To install the Delta MIDI driver once OMS is properly installed: 1. Open the "Delta Products"folder on the driver CD, then the Delta 1010LT Mac folder. Locate the "Delta OMS Driver." 2.

On your Macintosh hard drive, in your System folder, you will find an "OMS Folder."Drag the Delta OMS Driver into the OMS Folder. 3. Restart your computer. To Configure your Delta 1010LT MIDI in OMS, go to the Control Panel or Chooser under the Apple Menu, and make sure AppleTalk is turned off (this is recommended, although OMS will sense that it is on and prompt you to turn it off).

If you are configuring OMS for the first time, follow these instructions to configure OMS. 13 1. In the Opcode folder, which you will find on your hard drive, locate the OMS Applications folder, "then OMS Setup." Double click on OMS Setup. 2.

OMS will inform you that it has not yet been configured. Click OK. 3. The Create A New Studio Setup dialog box now appears. Click OK. 4. The "OMS Driver Search" box asks you to choose the port on which you've attached the Delta MIDI (either Modem or Printer). DO NOT choose a port, just click "Search." OMS begins Searching. 5.

"OMS Driver Setup" shows the "Delta" MIDI in a list when OMS successfully finds the driver. Click OK. OMS will now define (shows "Identifying") the Delta output port. The "OMS MIDI Device Setup" dialog box will appear showing the Delta's output port with a check box to the left of the port, indicating that the port is enabled. Now click on OK. 6. Next, the "My Studio Setup" appears with a 'file save' dialog box over it. You will now need to save your new Studio Setup before you can assign an instrument to the Delta's MIDI output and input.

Assign your instrument and you are done. You may now exit OMS Setup by quitting the application.

Delta Control Panel Installation on the Mac The Delta Control Panel may be placed anywhere on your hard drive, or any partition of your hard drive that you find convenient. Once the control panel file has been dragged from the CD onto your hard drive, you may double click it to launch the Delta Control Panel software. You may also create an alias to the control panel by highlighting it, then holding Apple key+M. This alias can then be placed on your desktop. @@@@Without the music program open however, it is okay to open the Delta panel from your desktop or other location.

Delta System Basics Delta's Analog Inputs/Outputs The Delta 1010LT PCI Audio Card's analog inputs and outputs are compatible with a wide variety of audio products. The Delta Control Panel software allows you to configure the signal level of each analog output individually, or all analog outputs as a group. Signal level settings of +4dBu, "Consumer" (-4dBu), and "-10" are available. +4dBu is considered a professional operating line level, and is generally associated with balanced, two-conductor cables and connectors such as the 1010LT's analog inputs 1 & 2. The +4dBu setting will allow you to accept or output a "hotter" signal.

The 'Consumer' setting is preferred for semi-pro audio equipment and some consumer equipment that can output accept a 'hotter' signal than the '-10' setting. The 'Consumer' setting offers 14 approximately 6dB more headroom than does the '-10' setting. Semi-pro and consumer device signal levels vary from manufacturer-to-manufacturer and even product-toproduct, so a little experimentation between Consumer and 10 settings may be required for optimal results. NOTE: Analog inputs 3 through 8 on the Delta 1010LT do not have microphone pre-amplifiers built into them. Therefore direct connection to a microphone is not recommended. Instead run the microphone signal through a microphone pre-amp (such as the M-Audio "Audio BuddyTM" or M-Audio "DMP2TM") and then connect the pre-amp output to the input of the Delta 1010LT. Inputs 1 & 2 are female XLR connectors, and allow connection to balanced microphone or line level audio signals. All other analog jacks on the Delta 1010LT breakout cable are of the RCA (coaxial) variety. The RCA jacks allow connection to unbalanced (typically semi-pro or consumer) connections. The Digital Monitor Mixer The Delta 1010LT PCI Audio Card has a hardware digital audio mixer built into its PCI controller chip.

It accepts digital audio streams from all hardware inputs and all outgoing software audio devices, mixes them with 36-bit internal precision and then provides the mixed output to one or more locations. For the purpose of monitoring, the output of the mixer may be routed, via the control panel's Patchbay/Router page, to the first set of Delta 1010LT analog outputs (OUT1/OUT2 as a stereo pair) and/or the S/PDIF digital output. At the same time, the mixer may be used for stereo mix-down, with the mixer's output recorded into the user's application software. The digital audio mixer is configured and controlled by the included Delta Control Panel Software. The Patchbay / Router In addition to the built-in monitor mixer, the Delta 1010LT PCI Audio Card includes an output patchbay/router. The patchbay/router allows each output (analog or digital) to be connected to a variety of input sources. The 1010LT's outputs may accept audio from software sources (these output devices are visible in your audio software applications) or from hardware sources such as the analog and digital inputs or the monitor mixer. This capability makes the Delta 1010LT quite flexible for playing and monitoring any audio file format, or directly connecting inputs to outputs for system test purposes. Synchronization For proper operation, the entire Delta 1010LT system is always synchronized to a single master clock. The master clock is chosen via the Delta Control Panel software and this clock may be derived from the Delta 1010LT's internal crystal oscillators, S/PDIF In, or Word Clock In.

Most of the time the master clock is taken from the internal crystal oscillators. However, the S/PDIF and Word Clock options are used in situations where the Delta 1010LT must be synchronized to external digital audio or sample rates derived from an external device. 15 Using the initial default setting, the master clock is derived from the internal crystal oscillators. Operation in this mode is similar to that of a generic sound card for instance, when an audio file is played through the Delta drivers, the software application playing the audio file is responsible for setting the sample rate in the sound card hardware. The Delta 1010LT supports these sample rates by using either of its internal crystal oscillators and dividing the rate of that oscillator by some value to derive the proper sample rate.

In situations where S/PDIF In is being used, the Delta 1010LT should usually be configured to get its master clock from the S/PDIF In data stream. The reason for this is simple an S/PDIF data stream coming from an external source is rarely going to be in sync with the Delta 1010LT (or other digital audio devices in the system for that matter), even if the sample rates are set the same. If the master clock were set to use the internal crystal, then the incoming S/PDIF audio would have "pops," "crackles," and other undesirable audio artifacts present in it. Instead, setting the master clock to "S/PDIF In" will synchronize the Delta 1010LT to the S/PDIF input data and its digital audio will be transferred properly. There is one special case to consider, however. The external unit sending the S/PDIF digital audio to the Delta 1010LT may be "locked" to the word clock emitted from the Delta 1010, or both the external unit and the Delta 1010LT are locked to the same external word clock. In these cases, the Delta 1010LT and the external S/PDIF device are in-sync, and the S/PDIF data would therefore be in-sync with the Delta 1010LT system. We've discussed internal crystals and S/PDIF In as master clock sources. The third option is Word Clock. Word Clock is the desirable choice when you want to synchronize the Delta 1010LT with the word clock of something else in your system. That "something else" may be a another unit that has a word clock output, or it may be a dedicated house word clock generator. Finally, the Word Clock and S/PDIF In options may be used to operate the Delta 1010LT at non-standard sample rates. When one of these two options is selected, the Delta 1010LT's sample rate will automatically match that of the incoming word clock or S/PDIF data stream. NOTE: When either the S/PDIF In or Word Clock is selected as the master clock source, the Delta 1010LT mixer's frequency response will be affected by whatever sample rates you inject at the S/PDIF In or Word Clock In.

*This is because (1) the digital mixer operates at the same sample rate as the rest of the board, and (2) sample rate and frequency response are directly correlated.*

*Using the Delta 1010LT with your Music Software Application Once the Delta 1010LT's hardware and driver software are properly installed, it is ready for use with your music application software. Some of these applications may require you to highlight or enable the Delta 1010LT drivers within the program, and others may have a utility that analyzes or profiles the audio cards in your system and enables the drivers. Your software should have an audio device driver setup page. 16 WINDOWS MME AUDIO INPUT DEVICES: All Delta 1010LT analog and S/PDIF inputs may be used simultaneously for a total of 10 input channels. Within your software application(s), the names of the Delta 1010LT audio input devices are: PCM In 1/2 Delta-1010LT PCM In 3/4 Delta-1010LT PCM In 5/6 Delta-1010LT PCM In 7/8 Delta-1010LT S/PDIF In Delta-1010LT Mon. Mixer Delta-1010LT The PCM In devices allow recording a stereo stream directly from the specified analog input pairs. The S/PDIF In device allows you to record a stereo stream directly from the S/PDIF input. The Mon. Mixer device allows stereo recording from the digital "monitor" mixer built-into the Delta 1010LT. The audio data recorded from this device is the mix of input and output streams that is set up in the Delta Control Panel software's Monitor Mixer page (see Delta 1010LT Control Panel Software section).*

*Note that all of the input devices are stereo. Your application software may break these down further to "left" and "right" mono devices. Therefore you may see them as "Left PCM In 1/2 Delta-1010LT, Right PCM In 1/2 Delta-1010LT," "Left S/PDIF In Delta-1010LT, Right S/PDIF In Delta-1010LT," or "Left Mon. Mixer Delta-1010LT, Right Mon. Mixer Delta-1010LT," etc.*

*from within your recording software. WINDOWS MME AUDIO OUTPUT DEVICES: All Delta 1010LT analog and S/PDIF outputs may be used simultaneously for a total of 10 output channels. Within your software application(s), the names of the Delta 1010LT audio output devices are: WavOut 1/2 Delta-1010LT WavOut 3/4 Delta-1010LT WavOut 5/6 Delta-1010LT WavOut 7/8 Delta-1010LT WavOut S/PDIF Delta-1010LT All WavOut devices allow playing a stereo audio stream to the analog hardware outputs (for WavOut 1/2, 3/4, 5/6, 7/8), the S/PDIF hardware output (for WavOut S/PDIF), and/or into the hardware router or mixer. Your application software may break each of these stereo devices down further to "left" and "right" mono devices. Therefore you may see them as "Left WavOut 1/2 Delta-1010LT, Right WavOut 1/2 Delta-1010LT", or "Left WavOut S/PDIF Delta-1010LT, Right WavOut S/PDIF Delta-1010LT", etc.*

*from within your music software. Other software will handle the outputs as stereo pairs, but allow you to pan audio left or right within the pair. Note that each device name begins with "WavOut." This is to remind you that these are software devices, and not always connected directly to output hardware. Instead they are connected to the Delta 1010LT's internal patchbay/router and may be sent to one of many destinations. For more on the patchbay/router, see the Patchbay/Router section of the Delta Control Panel software discussion. 17 ASIO or EASI DRIVER INPUT DEVICES: When using the ASIO or the EASI audio drivers with music programs that support this type of audio, the input devices are displayed as mono devices. Within these software applications, the names of the Delta 1010LT audio input devices are: Analog In1 Delta-1010LT Analog In2 Delta-1010LT Analog In3 Delta-1010LT Analog In4 Delta-1010LT Analog In5 Delta-1010LT Analog In6 Delta-1010LT Analog In7 Delta-1010LT Analog In8 Delta-1010LT S/PDIF In L Delta-1010LT S/PDIF In R Delta-1010LT Mon. Mixer L Delta-1010LT Mon. Mixer R Delta-1010LT Notice the S/PDIF In and Monitor Mixer names include "L" and "R" characters.*

*"L" indicates the left channel of the stereo stream, while "R" indicates right channel. ASIO or EASI DRIVER OUTPUT DEVICES: The Delta 1010LT's ASIO and EASI output devices appear in stereo pairs. Because each device is stereo, you may see "left" and "right" references within your software application. This allows the application to pan audio left and right under software control. To send a signal to a Delta ASIO output 1 (for example) as a mono output send, one would choose "Analog 1/2 Delta-1010LT" for that track's output port, and then pan that output hard left. These outputs are named as follows: Analog 1/2 Delta-1010LT Analog 3/4 Delta-1010LT Analog 5/6 Delta-1010LT Analog 7/8 Delta-1010LT S/PDIF L/R Delta-1010LT MIDI DRIVERS: The Delta 1010LT MIDI drivers, once enabled in your software's MIDI Setup, will appear as a MIDI source and a MIDI port within that program's track configuration windows. The MIDI input driver is named "MIDI In Delta-1010LT," and the MIDI output driver is named "MIDI Out Delta-1010LT." Some software applications allow you to redefine/rename these devices per supplied or manually entered instrument definitions. WINDOWS MULTIMEDIA SETTINGS: Windows may be set up to use the Delta 1010LT as its default audio device, allowing system sounds to be sent out the Delta 1010LT. This also enables you to use the Delta 1010LT with the sound applets included with Windows.*

*To set this up, go to Control Panel | Multimedia. In the Audio Properties page, set the Playback and Recording devices to the Delta 1010LT input and output devices of your choice. 18 Windows may also use the Delta 1010LT as its default MIDI device. This allows the Delta 1010LT to be used with the MIDI applications included with Windows. To set this up, go to Control Panel | Multimedia | MIDI.*

*Set the Delta MIDI driver as the default Windows MIDI driver by clicking on the "MIDI Out Delta-1010LT" entry in the driver list, then selecting "OK" or "Apply." MACINTOSH SOUND MANAGER INPUTS AND OUTPUTS: The Apple Sound Manager limits the user to one stereo pair for input and one stereo pair for output. Within your music software, the device selection when using the Sound Manager drivers for input and output will be "Sound Manager" both for input source and for output port. To select the Sound Manager driver, open the Apple Menu and go to Control Panel | Sounds. For both "Sound In" and "Sound Out," click and highlight the Delta icon, then exit.*

*You may select which Delta hardware stereo input pair and stereo output pair will be used for the Sound Manager's Sound In and Sound Out in the Delta Control Panel "Hardware Settings Page" (see section, "Hardware Settings Page"under "Delta Control Panel"). Whichever stereo pair you select, the software input and output device selection within your music program will remain the same, namely, "Sound Manager.*

" Delta 1010LT Control Panel Software - PC Once the Delta 1010LT is properly installed, an "M Audio Delta H/W" icon will be displayed in your Windows Control Panel. By double-clicking on that icon, you will launch the Delta Control Panel software. You may also launch the Delta Control Panel software from the desktop if you have previously created a shortcut there (see "Verifying Delta Control Panel Software Installation" section for instructions on how to do this). @@To display a desired page, click on its tab. Below are functional descriptions of each page. @@@@@@@@@@At the same time, the mixer outputs may be recorded in stereo by software. 19 The Monitor Mixer Page is essentially a collection of volume level faders, audio level (or `peak') meters, and solo/mute controls. For each mixer output and input channel there is one of each: a volume fader, a peak meter, a solo control, and a mute control.

LEVEL FADERS: Each volume fader may be controlled by dragging the fader `handle' vertically with the mouse, or by clicking on the `handle' to make it active and then adjusting it with the up/down cursor keys of your computer keyboard. @@@@@@@@@@@@@@@@@@@The red section of the meter ranges from -3dB to 0dB. @@@@On all output level meters, 0dB indicates full-scale output. Unlike the inputs, clipping is impossible on the outputs because of the 36-bit resolution built into the mixer hardware. 20 MASTER VOLUME: At the left side of the Monitor Mixer page, you will see the `Master Volume' faders and peak meters. These faders have the longest `throw' and highest meter resolution of any level controls in the mixer page. They control the overall stereo level of the mixer output. The peak meters indicate the output signal levels with respect to full-scale and are directly affected by the settings of the master volume faders. MIXER INPUTS: The `Mixer Inputs' are inputs to the monitor mixer. These inputs accept hardware audio streams (directly from the Delta's analog and digital input ports) and software audio streams (digital audio generated in software to be output).

This combination of streams makes the monitor mixer extremely flexible. Each mixer input channel has its own level fader and may be panned anywhere in the left/right stereo field. Each input also has its own peak meter. The peak meters indicate the incoming "pre-fader" levels of the incoming audio and are therefore not affected by the fader settings. However, the input faders do affect the levels of the signals exiting the mixer and you will see the affect of the input faders on the output "Master Volume" peak meters.

Because of the large number of mixer inputs, not all inputs are displayed simultaneously. You may use the scroll bar at the bottom of the Delta Control Panel to scroll the view left or right. On the PC, from far left to right the inputs are labeled "WavOut 1/2" through "WavOut 7/8," then "WavOut S/PDIF." These inputs accept the digital audio streams being sent from your software application (or Windows) to the driver devices with those same names. Each name begins with "WavOut" to remind you that these are software streams and may not necessarily be routed to any physical outputs (see Patchbay/Router Page). Further to the right are more channels, labeled "H/W In S/PDIF" and "H/W In 1/2 through 7/8." These mixer inputs are audio streams from the physical Delta 1010LT hardware inputs, hence the "H/W" at the front of each label. PAN: Each mixer input may be individually panned anywhere in the stereo output mix. A pan control is positioned directly under each input channel peak meter and has the appearance of a small vertical pointer. To make a coarse adjustment, click on the pan control with your mouse and drag it to the desired position. For finer adjustment (in 1% increments), you may click on the pan control to make it active, and then use the left/right or up/down cursor keys on your computer keyboard. Either way, while the pan setting is being adjusted, its value will appear numerically in the Master Volume's status box (below the Master Volume Stereo Gang control) as a percentage from left pan to right pan: -100% represents far left, +100% represents far right, and 0% represents the center. SOLO: Each mixer input channel has a "Solo" checkbox associated with it. Clicking on and activating a Solo box will solo the selected channel by essentially muting all other signals. When more than one channel has Solo selected, all solo channels will be summed to the solo `buss' (path), which is what one might consider an `in place' solo as opposed to a PFL, or pre-fader listen (levels and pans still apply).

Deactivating all solo boxes will return all input channels to their previous mute/unmute states. MUTE: Every mixer input channel has a "Mute" checkbox associated with it. Clicking on and activating the Mute box will remove that signal from the stereo buss. Deactivating the Mute box will add the signal back into the stereo buss. STEREO GANG: All input channel pairs have a "Stereo Gang" capability. Clicking on and activating the Stereo Gang checkbox will link (or "gang") the left/right faders so that both channels may be adjusted together as a stereo pair. 21 Patchbay/Router Page The Patchbay/Router page allows you to connect each of the Delta 1010LT's hardware outputs (4 pairs of analog outputs and 1 pair of digital output channels) to specific audio sources within the Delta 1010LT board. To display this page, click the "Patchbay/Router" tab of the Delta Control Panel. The leftmost vertical column of Patchbay/Router page, "H/W Out 1/2," connects this analog stereo pair to one of eight stereo sources: 1. The default setting, "WavOut 1/2," connects ports OUT1 and OUT2 to your music software or Windows multimedia applet.

In other words, when music software plays audio to the device named "WavOut 1/2 Delta-1010LT" it will be routed directly to the "hardware" analog outputs 1 & 2 of your 1010LT breakout cable. 2. The second option, "Monitor Mixer," connects ports OUT1 and OUT2 to the outputs of the Delta 1010LT monitor mixer. For more information of the capabilities of the monitor mixer, please see the section "Monitor Mixer Page." 3.

The third option, "S/PDIF In," connects ports OUT1 and OUT2 directly to the hardware S/PDIF input on the Delta 1010LT PCI host card. The left channel of the S/PDIF In is routed to OUT1 and the right channel of the S/PDIF In is routed to OUT2. 4. The fourth option, "S/PDIF In (L/R Rev.)," functions identically to the third option, except that the left and right channels are swapped.

Therefore in this mode, the left channel of the S/PDIF In is routed to OUT2 and the right channel of the S/PDIF In is routed to OUT1. 5. Selections five through eight connect the hardware analog inputs 1 & 2, 3 & 4, 5 & 6, or 7 & 8 (respectively) directly to the 1010LT's hardware analog outputs 1 & 2.

For example, if "H/W In 1/2" were selected, any signal present at the IN1 port will be copied to OUT1, and any signal present at the IN2 port will be copied to OUT2. This same behavior applies to "H/W In 3/4," "H/W In 5/6," and "H/W In 7/8" when selected. The next three vertical columns of the Patchbay/Router page (from left to right), "H/W Out 3/4," "H/W Out 5/6," and "H/W Out 7/8," connect these hardware analog outputs to one of four sources. Since the three columns function identically, we'll use "H/W Out 3/4" as the example: 1. The default setting, "WavOut 3/4," connects ports OUT3 and OUT4 to your music software or Windows multimedia applet. In other words, when music software plays audio to the device named "WavOut 3/4 Delta-1010LT" it will be routed directly to the "hardware" analog outputs 3 & 4 of your 1010LT breakout cable. 2.

The second option, "S/PDIF In," connects ports OUT3 and OUT4 directly to the hardware S/PDIF input on the Delta 1010LT PCI host card. The left channel of the S/PDIF In is routed to OUT3 and the right channel of the S/PDIF In is routed to OUT4. 3. The third option, "S/PDIF In (L/R Rev.)," functions identically to the second option, except that the left and right channels are swapped. Therefore in this 22 mode, the left channel of the S/PDIF In is routed to OUT4 and the right channel of the S/PDIF In is routed to OUT3. 4. Options four through seven connect the hardware analog inputs 1 & 2, 3 & 4, 5 & 6, or 7 & 8 (respectively) directly to the 1010LT's hardware analog outputs 3 & 4. For example, if "H/W In 1/2" were selected, any signal present at the IN1 port will be copied to OUT3, and any signal present at the IN2 port will be copied to OUT4. This same behavior applies to "H/W In 3/4," "H/W In 5/6," and "H/W In 7/8" when selected.

The rightmost vertical column of Patchbay/Router page, "H/W Out S/PDIF," connects the Delta 1010LT's hardware S/PDIF outputs to one of eight sources: 1. The default setting, "WavOut S/PDIF," connects the S/PDIF Out port to your music software or Windows multimedia applet. In other words, when music software plays audio to the device named "WavOut S/PDIF Delta-1010LT" it will be routed directly to the hardware S/PDIF output on your Delta 1010LT PCI host card. 2. The second option, "Monitor Mixer," connects the S/PDIF Out port to the outputs of the Delta 1010LT monitor mixer.

For more information on the capabilities of the monitor mixer, please see the section "Monitor Mixer Page." 3. The third option, "S/PDIF In," connects the S/PDIF Out port directly to the hardware S/PDIF input on the Delta 1010LT PCI host card. The left channel of the S/PDIF In is routed to the left channel of S/PDIF Out and the right channel of the S/PDIF In is routed to the right channel of S/PDIF Out. 4.

The fourth option, "S/PDIF In (L/R Rev.)," functions identically to the third option, except that the left and right channels are swapped. Therefore in this mode, the left channel of the S/PDIF In is routed to the right channel of S/PDIF Out and the right channel of the S/PDIF In is routed to the left channel of S/PDIF Out. 5. Selections five through eight connect the hardware analog inputs 1 & 2, 3 & 4, 5 & 6, or 7 & 8 (respectively) directly to the 1010LT's S/PDIF Out port. For example, if "H/W In 1/2" were selected, any signal present at the IN1 port will be sent to the left channel of the S/PDIF Out, and any signal present at the IN2 port will be sent to the right channel of the S/PDIF Out. This same behavior applies to "H/W In 3/4," "H/W In 5/6," and "H/W In 7/8" when selected. At this point, you may begin to realize the versatility of the Monitor Mixer and the Patchbay/Router, and the relationship between the two. You may want to re-read this section and make some practice adjustments within the Delta Control Panel software to become proficient in routing and mixing, as well as check out the Tutorials section toward the end of this manual. If somewhere in the process you become confused, you may always restore the default settings to use the card as a straight 10-in 10-out device -- just choose the topmost option in each of the Patchbay/Router columns.

Hardware Settings Page The Hardware Settings page of the Delta Control Panel gives you control over miscellaneous features of the Delta 1010LT. To display this page, click the "Hardware Settings" tab of the Delta Control Panel. 23 MASTER CLOCK: This section allows you to select the source of the board's master clock: Internal Xtal (crystal), S/PDIF In, or Word Clock. Master clock operation is outlined in the Synchronization section of this manual. Internal Xtal is the default setting. Be sure to select "S/PDIF In" if you will be recording or monitoring an S/PDIF stream, or "Word Clock" if you wish to synchronize your digital audio with a source device that is Word Clock capable. NOTE: If "S/PDIF In" is selected as the master clock source, be sure to supply a valid S/PDIF signal to the board's active S/PDIF input. Otherwise, erratic timing and/or improper sample rates will be experienced. The same is true for selecting "Word Clock" as the master clock setting  make sure there is a valid word clock signal present at the Delta 1010's Word Clock In. Once a master clock source has been selected, its synchronization status is continually monitored and displayed below the master clock radio buttons.

If internal crystal is selected, the status display will always say "Locked." On the other hand, if S/PDIF In or Word Clock is selected as the master clock source, the control panel will display "Locked" only when a valid S/PDIF or Word Clock signal is detected. It will display "Unlocked" when there is no signal at the selected input, or when the signal is corrupt or invalid for any reason. CODEC SAMPLE RATE: This section indicates the present board sample rate, as set by application software. The sample rate selected here will be used to drive the digital mixer and all outputs.

The "Rate Locked" checkbox is used to force a sample rate upon the system. It is disabled by default to allow software access to all supported sample rates. When checked, it causes the driver to only operate at the selected sample rate. This means that any application that attempts to open the Delta 1010LT driver at a sample rate other than the one selected here will fail to do so and will post an error message. "Reset Rate When Idle" is selected when you want the sample rate to return to a particular setting when a software application is not actively using the board.

This is particularly handy for keeping the digital mixer running at a specific sample rate.

NOTE: Because the digital monitor mixer runs at the sample rate of the rest of the board, and because sample rate directly affects frequency response, it may be desirable to keep the sample rate at or above 44.1 kHz while using the monitor mixer. This is accomplished by enabling "Reset Rate When Idle" and selecting a sample rate of 44.1 kHz or greater. S/PDIF SAMPLE RATE: When using S/PDIF In as your master clock, this section tells the driver what the expected S/PDIF input sample rate is. The section is only displayed when the board is set to use S/PDIF In as the master clock source. From the list, select the sample rate closest to that of the S/PDIF input data. The sample rate selected here will be the only sample rate available to the software applications. Therefore, you must set your audio software application to this same sample rate or else the application will display an error message.

NOTE: When S/PDIF In is the master clock source, the digital monitor mixer will run at the sample rate received at the S/PDIF In. Since frequency response and sample rate are directly related, the mixer frequency response will be directly related to the sample rate of the S/PDIF input data. 24 WORD CLOCK SAMPLE RATE: When using Word Clock In as your master clock, this section tells the driver what the expected word clock input sample rate is. The section is only displayed when the board is set to use Word Clock In as the master clock source. From the list, select the sample rate closest to that of the incoming word clock. The sample rate selected here will be the only sample rate available to the software applications. Therefore, you must set your audio software application to this same sample rate or else the application will display an error message. NOTE: When Word Clock is the master clock source, the digital monitor mixer will run at the sample rate received at the Word Clock in. Since frequency response and sample rate are directly related, the mixer frequency response will be directly related to the sample rate of the S/PDIF input data. MULTITRACK DRIVER DEVICES: The Delta 1010LT drivers intelligently synchronize the beginning of recording and playback across all audio devices on the board.

When using application software that is capable of using multiple channels simultaneously, select "Single and In-Sync" to ensure that all audio channels will begin playback and/or recording at the same time. Otherwise select "Independent" to allow the audio channels to play independently  this setting may be desirable if more than one application needs to access the Delta 1010LT simultaneously. The selection "Multi-card Sync" will remain grayed out until a second Delta PCI card (of which there are a variety) is installed in the system. When you wish to synchronize two (or more, up to four) Delta cards, select Multi-card Sync on the second and successive cards. Then, select S/PDIF as your master clock, and connect the S/PDIF output of the first card to the S/PDIF input of the second card, etc.

This ensures that when the application goes into record or playback, it waits until all audio ports are open before it commences with recording or playback of audio. DMA BUFFER SIZES: This section specifies the amount of system memory dedicated to digital audio buffering. Setting a buffer size that is too small may result in clicks or pops in the audio stream as some data may be lost. Larger buffers cause slightly more latency but prevent the pops and clicks that might occur with smaller buffer sizes  the default settings are recommended but you may desire to tweak these default settings to suit your tastes. This buffer size must be set in the Delta Control Panel before you launch your music software.

When using ASIO with the Delta 1010LT, set the buffer size in the control panel, then exit the control panel. After doing so, launch your music software. VARIABLE SIGNAL LEVELS: This section has two layers, providing extremely versatile control of your Delta 1010LT's input and output operating line levels. In the first layer there are three selections available for globally setting the operating line levels for the Delta 1010LT's analog input and output ports. These selections are labeled "+4dBu," "Consumer" (-4dB), and "-10dBV," represented by sets of radio buttons each for both the Delta analog inputs and the Delta analog outputs. These sections are labeled "All Inputs" and "All Outputs," respectively. The default setting is "Consumer" for both the input and output levels. Consumer is a good "middle of the road" setting, and will work well in many situations. The setting you choose ultimately should match the line level of the source audio device (for the inputs), and the target audio device (for the outputs). Check the user's guide for these external devices for information on their input and/or output line levels.

25 At the Delta analog outputs, a +4dBu setting will give the "hottest" output signal level. Generally, this signal level is associated with balanced audio inputs. The Delta 1010LT's outputs are unbalanced, but can still interface successfully with balanced inputs. The Consumer and -10dBV settings are typically associated with unbalanced operation for both consumer and prosumer audio gear, with Consumer being less hot (-4dBV) and -10dBV being the least hot. As a rule of thumb, if your signal levels in the computer are sufficient but your target device is not receiving enough level, try a hotter output signal level setting. At the Delta analog outputs, a +4dBu setting will give the most headroom for recording, allowing the Delta 1010LT to accept a hotter signal level. If your source audio device puts out less signal, such as unbalanced consumer and prosumer equipment, then the lower settings of Consumer and -10dBV will lower the headroom, bringing record ceiling closer to the signal that you are recording. As a rule of thumb, the lower the signal level of your source audio, the lower the input signal level should be set. A unique case here are the Delta 1010LT's inputs 1&2. While all of the other inputs and all of the outputs are unbalanced on RCA connectors (single conductor with a shield), inputs 1&2 will accept balanced cables on XLR jacks (two conductor with a shield). You may want to set these inputs to a +4dBu signal level setting while setting the rest of the inputs to a different line level setting. Eight faders are also available for setting each input and output level either individually or in stereo pairs. This should be considered an advanced settings page, useful when the source audio or target devices are diverse and need custom configuration. To access this second layer, click the button labeled "Sliders" located in the lower left-hand corner of the Variable Signal Levels section of the Hardware Settings page. Initially, the location of the faders will reflect the last radio button selection made in the first layer.